

BECOM



BNE

A word cloud centered around the phrase 'believe science hands-on equipment'. The words are arranged in a circular pattern, with 'believe science' on the left and 'hands-on equipment' on the right. The words are in various colors (dark green, brown, yellow, and light green) and sizes, indicating their relative frequency or importance. The background is white.

believe science hands-on equipment

discovery curriculum progress

exploring engaging personal real world students not-boring connected outside life

relate work experimenting fun experience connections

questioning

BW

know
foster
cross-curricular
observations
change
inquiry
process
trial
perspective
love
appreciating
demonstrations
real
knowledge
sense
world
error
constant
wonder
questioning
non-threatening
hands-on
connected
relating
global
interactive
connection
life
believe
science
•

MBC



ME

hands-on
science
believe
interactive
activity
curiosity
questions
world
real
messy
explain
specialized
apply
relevant
proper
support
exciting
inquisitive
equipment
lead
related
curriculum
instill
loud fun
embrace
effectively
risks
ask

MN

believe

connections

age

self-discovery

involve

hands-on

practical

science

cross-curricular

engaging

exploring

interactive

make

investigation

discovery

relevant

related

memorable

based

applied

real

user-friendly

text

appropriate

meaningful

journey

world

inquiry

fun

interesting

MS

science
believe
learning
connections
real world
hands-on
exploration
interactive
relevant
connected
investigating
theory
inquiry-based
fun
current
peak
student's
experiential
age
inspiring
curiosity
grade

Mix & Mingle / Tea Party

It's not rocket science.... Or is it?

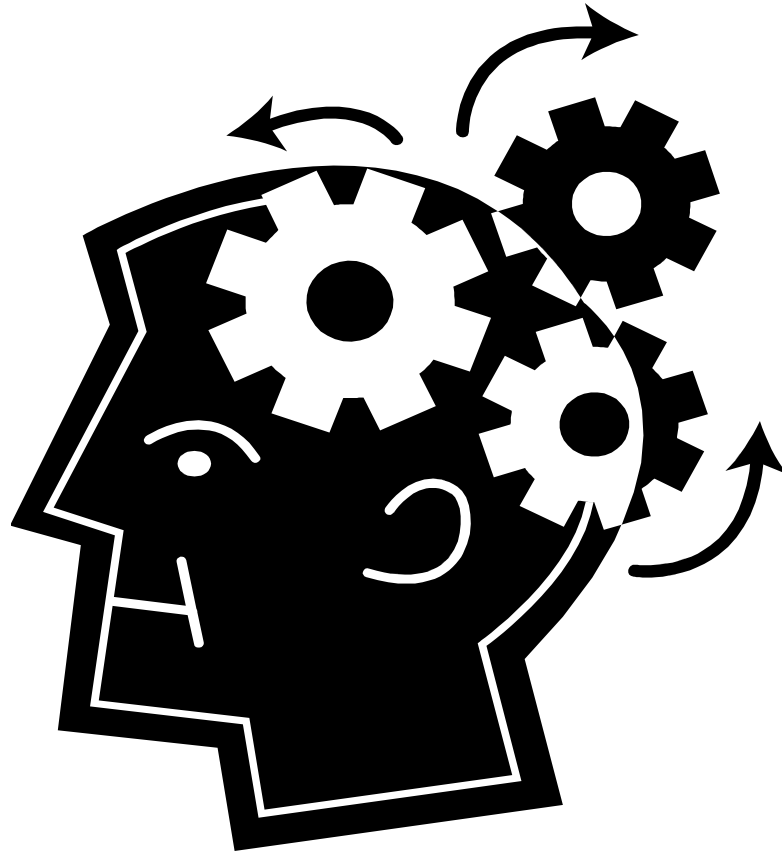
Learning Goals

By the end of this session you will :

- **revisit the inquiry continuum through demos and student activities**
- **explore a variety of graphic organizers that can be used for assessment of scientific inquiry**
- **expand your repertoire of literacy strategies that can be used in science**



Minds on...



STAND BY YOUR QUOTE...

- “Much in science is based on curiosity. As I keep doing it, I keep becoming more curious. Hopefully that leads to something that can help.”

— Peter Burns, Senior Scientist, Sunnybrook Health Sciences Centre, in The Toronto Star, Thursday, March 10, 2011



- “The scientist is not a person who gives the right answers, it is one who asks the right questions.”

- Claude Levi-Strauss, *Le Cru et Le Cuit*, 1964



- “The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.”

- William Bragg Sr.



“Science and art belong to the whole world and before them vanish the barriers of nationality.”

—Johann Wolfgang von Goethe



It Says / I Say / And So

(Making Predictions and Inferring)

It Says	I Say	And So
Facts, Statistics, Expert Opinion, Dates	Personal Opinion, Critical Observation, Reflection, Comparison	Conclusion, Resolution, Contradiction, Next Steps.



Quick Lab:

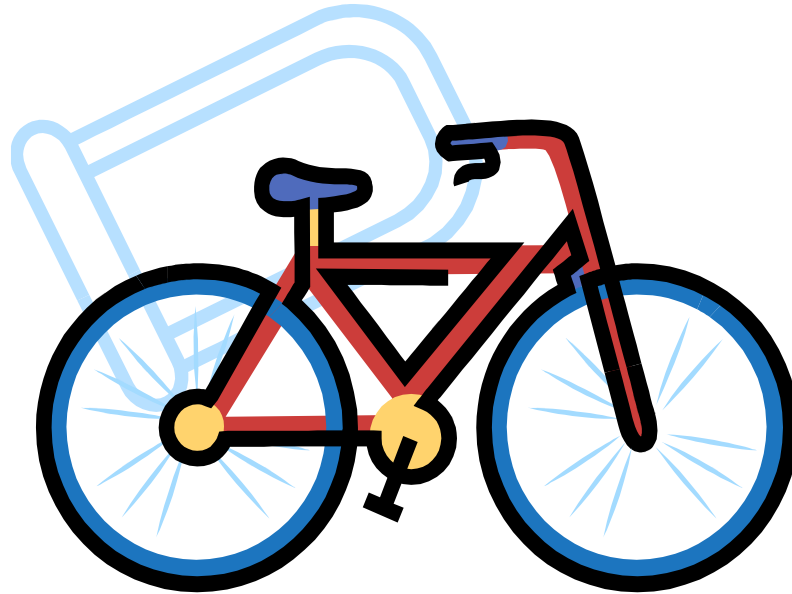
Calculating Mechanical Advantage



Grade 8 Systems In Action , p. 120

Design a Lab:

My Bicycle's Mechanical Advantage



Grade 8 Systems In Action , p. 121

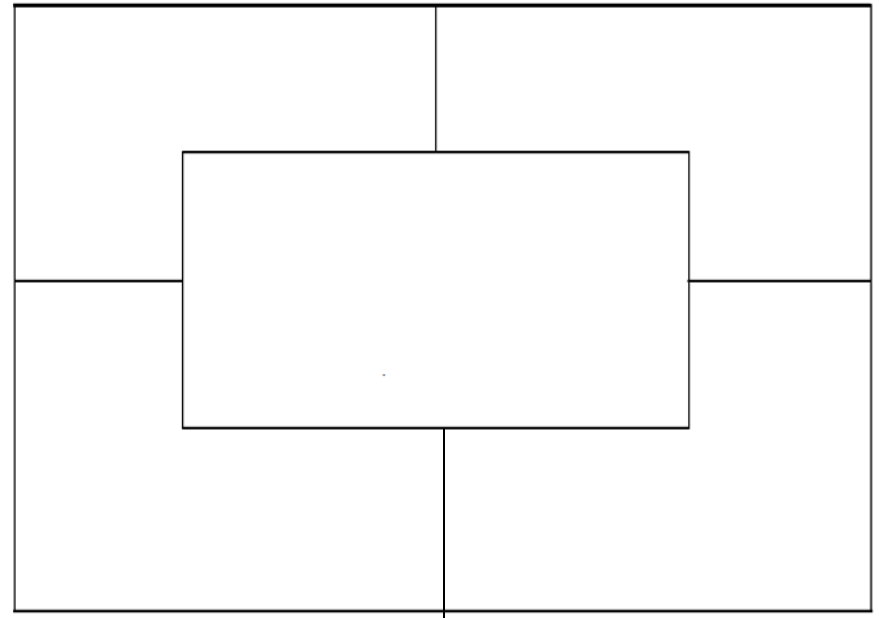
The Inquiry Grid

	Demonstration	Activity or “cookbook lab”	Teacher- Initiated Inquiry	Student- Initiated Inquiry
Posing the Question	teacher	teacher	teacher	student
Planning the Procedure	teacher	teacher	student	student
Formulating the Results	teacher	student	student	student

Llewellyn, D. *Teaching High School Science Through Inquiry* pp. 66-76
 Llewellyn, D. *Inquire Within* pp. 64-77

Sharing: Place Mat

- What “inquiry” did you try since our last session?
- What were the successes & challenges with the activity you tried?
- Write these in your own corner.
- Any commonalities between the group?
Write these in the middle.
- Be prepared to share with whole group.



Demo – Egg Diffusion



Inquiry Activity – Baggy Science



Inquiry Activity – Cylindrical Wing



The Lingo of Science – Word Sort



Activity Choice Board



Alka – Seltzer Rockets



Bug –o- Copters

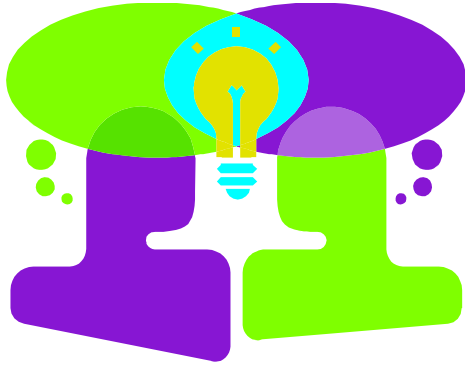


**pH – Cabbage Juice
Indicator**



Oil Spill Clean-up



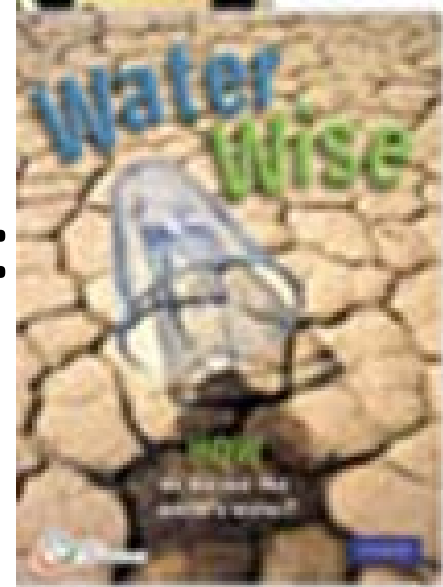


Consolidation: Sharing & Reflections

- Sharing of Choice Board Activities
- Graphic Organizers
- Changes we would make given our class this year (more support... enrichment...)
- Possible connections to STSE? Literacy?



Pearson's Literacy In Action units:



- Available on “Literacy” tab through your sciencesource.ca account and login
- Grade 7 → Ecozone: How do our actions affect the natural world?
- Grade 8 → Waterwise: How do we use the world's water?

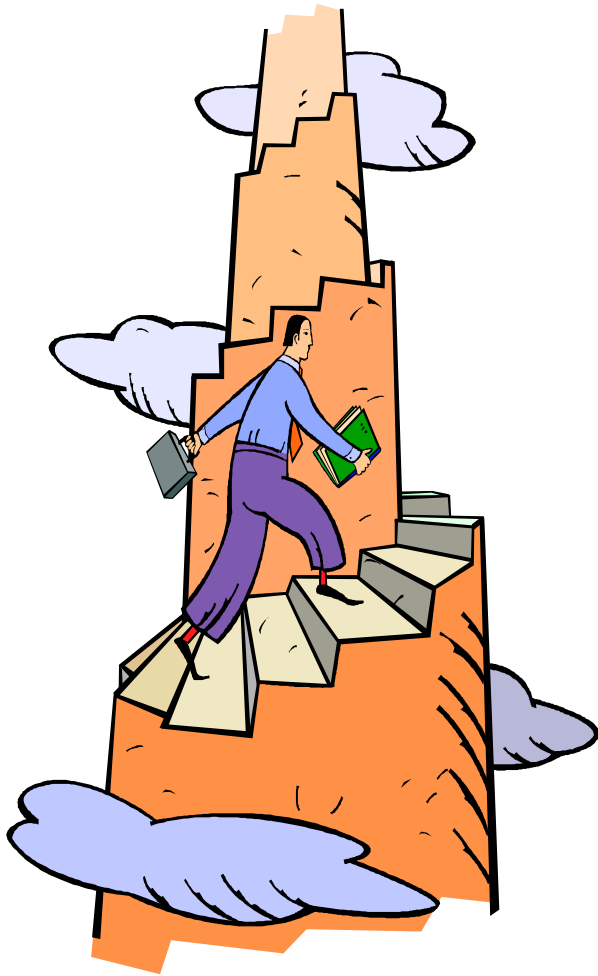
Closing Reflection

It helps now and then, to step back and take a long view. We accomplish in our lifetime only a fraction of the magnificent enterprise that is God's work. Nothing we do is complete, which is a way of saying that the kingdom always lies beyond us. We lay foundations that will need further development.

We cannot do everything, and there is a sense of liberation in realizing that. This enables us to do something, and to do it very well. It may be incomplete, but it is a beginning, a set along the way, an opportunity for the Lord's grace to enter and do the rest.

- From Oscar Romero

Next Steps...



- Exit Card Feedback
- Optional Planning Session on May 30th, 31st, June 1st or 2nd

